IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	)
	)
Mark KRUGER	) Group Art Unit: 2142
	)
Application No.: 09/847,720	) Examiner: Kelvin Y. Lin
	)
Filed: May 1, 2001	)
	) Confirmation No. 7066
For: HANDHELD COMPUTER SYSTEM THAT	)
ATTEMPTS TO ESTABLISH	)
ALTERNATIVE NETWORK LINK UPON	)
FAILING TO ESTABLISH A REQUESTED	)
NETWORK LINK	)

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

APPEAL BRIEF UNDER 37 C.F.R. § 1.192

Pursuant to 37 C.F.R. § 1.192, Appellant submits this Appeal Brief to the Board

of Patent Appeals and Interferences. In the March 2, 2006 final Office Action, the

Examiner finally rejected claims 1-27. A Notice of Appeal having been filed on

June 27, 2006, this Appeal Brief is being filed along with a Petition for Extension of

Time, a fee payment for a two month extension of time, and the corresponding Appeal

Brief fee payment.

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I. Real Party Interest

The real party in interest is PalmSource, Inc., the assignee of the entire right, title, and interest in the application.

II. Related Appeals and Interferences

There are currently no appeals or interferences related to this application that are awaiting decision by the Board of Patent Appeals and Interferences.

III. Status Of Claims

Claims 1-27 are pending. Claims 1-27, as set forth in the Claims Appendix, were rejected in the final Office Action and are involved in this appeal.

IV. Status Of Amendments

A Request for Reconsideration (without amendments) was filed in the U.S. Patent and Trademark Office on April 27, 2006, subsequent to the final rejection of claims 1-27 in the final Office Action dated March 2, 2006. Therefore, claims 1-27, as set forth in the Appendix, include the amendments submitted up to and including the Amendment filed on December 20, 2005.

V. Summary Of Claimed Subject Matter

The invention set forth in the pending claims relates to methods and systems for attempting to establish alternative network link upon failing to establish a requested network link. An exemplary computer system includes a personal digital assistant or handheld computer system, although the present invention can be practiced on other types of computer systems.

The personal digital assistant is a pocket sized electronic organizer with the capability to store telephone numbers, addresses, daily appointments, and software that keeps track of business or personal data such as expenses, etc. Furthermore, the personal digital assistant also has the ability to connect to a personal computer, enabling the two devices to exchange updated information. Additionally, the personal digital assistant can also be connected to a modem, enabling it to have electronic mail (e-mail) capabilities over the Internet along with other Internet capabilities. Alternatively, the personal digital assistant can have a network port (e.g., an Ethernet Local Area Network (LAN) port) to access a network coupled to the Internet, enabling the personal digital assistant to have electronic mail (e-mail) capabilities over the Internet along with other Internet capabilities. Moreover, an advanced personal digital assistant can have Internet capabilities over a wireless communication interface (e.g., radio interface). In particular, the personal digital assistant can be used to browse Web pages located on the Internet. The personal digital assistant can be coupled to a networking environment.

In operation, the personal digital assistant 100 attempts to establish an alternative network link upon failing to establish a requested network link. The personal digital assistant 100 may encounter conditions where access to numerous networks, in particular wireless networks, is not available. Rather than only providing an error message to the user upon a failed attempt to establish the requested network link, the personal digital assistant 100 determines whether the user has designated an alternative network link in case the requested network

link cannot be established. The alternative network link is selected from the plurality of network links that the personal digital assistant 100 is configured to support. If an alternative network link has been designated, the personal digital assistant 100 attempts to establish the alternative network link.

The personal digital assistant 100 can be configured to support a plurality of network links for communicating with numerous networks. These network links utilize a variety of network protocols and require a variety of physical connections (i.e., wired and wireless) to establish communication with the numerous networks. Examples of network protocols include: PPP (Point-to-Point Protocol), Ethernet, GPRS (General Packet Radio Service), TCP/IP (Transmission Control Protocol/Internet Protocol), Bluetooth wireless communication protocol, and IPX/SPX (Internetwork Packet Exchange/Sequenced Packet Exchange). Examples of physical connections include: wireless phone communication [e.g., GSM (Global System for Mobile Communications), CDMA (Code Division Multiple Access), TDMA (Time Division Multiple Access)], wired phone communication, serial line communication, network cable communication, parallel line communication, and wireless communication.

The personal digital assistant 100 can be configured to support several of the numerous wireless networks being deployed throughout the country. However, the numerous wireless networks may not be available in all regions of the country. The present invention enables the personal digital assistant 100 to easily initiate an alternative network link (e.g., to a wireless network or a wired network) when the requested network link (e,g,, to a wireless network) cannot be

established because any of a variety of reasons, such as insufficient network

capacity, technical network difficulties, and spotty network coverage.

A software environment of the personal digital assistant 100 includes an

application layer 10, a shared library layer 20, and an operating system layer 30.

This software environment provides the network functionality of the personal

digital assistant 100. Generally, an application 10 requests establishment of a

network link (e.g,, network link A 40, network link B 50, network link C 60, or network

link D 70) in response to an action by the user or any other action. In particular,

the application 10 sends a network open request (or makes a call) to a particular

shared library 20 (e.g., a network library 20), whereas the shared library 20 is a

code resource database which makes available a variety of API services that

applications 10 can request. Specifically, the network library 20 makes available

functions which perform network-related tasks, such as opening a network link,

sending data via the network link, reading data from the network link, etc.

The network library 20 interfaces with the operating system 30 to establish (or

open) the requested network link (e.g., network link A 40, network link B 50, network link

C 60, or network link D 70). If the network library 20 (which has network open code)

fails to establish the requested network link due to any of a variety of reasons

(e.g., a network-related error, a time out error, a non-fatal operating system error), the

network library 20 subsequently attempts to establish an alternative network link

which has been previously designated by the user for the requested network link. It is

possible for the user to omit designating the alternative network link. Moreover,

the user can designate multiple alternative network links in case the first alternative

network link cannot be established. Thus, the user can configure the personal digital assistant 100 to try an alternative network link when his/her first choice of network link is not available.

A plurality of network links can be supported by a personal digital assistant 100, each having an alternative network link designation in accordance with an embodiment of the present invention. As shown in FIG. 9, the personal digital assistant 100 can support network link A 40 (e.g., a wireless TCP/IP link), network link B 50 (e.g., wired TCP/IP link), network link C 60 (e.g., a Bluetooth wireless link), and network link D 70 (e,g., wireless IPX/SPX link).

VI. **Grounds of Rejection to be Reviewed on Appeal**

    1. **Whether the rejection of claims 1-27 under 35 U.S.C. § 102(e) based on U.S. Patent No. 6,681,252 to Schuster et al. (Schuster) should be reversed**

VII. **Arguments**

    A. **Summary of the Arguments**

With regard to the claim rejections under 35 U.S.C. § 102(e) based on Schuster, the rejections should be reversed because Schuster does not disclose or suggest associating one or more alternative network link designations with one or more of the network links. Instead, Schuster discloses three alternative link interfaces, **NOT** alternative network links. As discussed in detail, infra, Schuster's link interfaces are not the equivalent of network links. Schuster further only discloses a single network as is shown in FIG. 1 (network 106) or data network 206 in FIG. 2.

Further, Schuster fails to disclose or suggest determining whether a particular alternative network link designation is associated with a first network link. Instead, Schuster discloses routing a call to a data network telephone at a new location, which is not equivalent to determining whether a particular alternative network link designation is associated with the first network link, as required by claim 1.

In addition, Schuster does not disclose or suggest, if the first network link fails to be establishes and if the particular alternative network link designation is associated with the first network link, attempting to initiate, by the computer system, a particular network link of the plurality of network links based on the particular alternative network link designation. Indeed, Schuster makes no mention of any action to be taken when an

attempt to initiate a network link fails. Again, inasmuch as <u>Schuster</u> only teaches a single network between phones, it does not disclose a plurality of network links.

B.   Detailed Arguments

        1.   The rejections of claims 1-27 under 35 U.S.C. § 102(e) based on <u>Schuster</u> should be reversed because Shuster fails to disclose or suggest the features of independent claims 1, 8, 15, and 22

        a.   <u>Schuster</u>

<u>Schuster</u> discloses a Personal Information Device (PID) coupled to an IP telephony phone in order to provide end-to-end connectivity to another PID through a network. The system architecture includes a pair of internet-enabled phones that can establish a call session. Each phone is provided with an interface configured to communicate with a respective PID.

A data network telephone 208a is connected to a network 212 by a network interface 270. User interface circuitry 260 and three alternative link interfaces to the PID are connected to a processor 240. A first link interface 248 includes an RS-232 serial connection. A second alternative link interface may include a first connection 254, for example, an RS-232 connection with infrared circuitry 250 and infrared interface 252. A third alternative link interface may include a first connection 256, for example, an RS-232 connection, radio frequency circuitry 258 and a radio frequency interface 259. The link between a PID and its respective network data phone is a point-to-point-link and that each link may be a wireless link, an infrared link, or a radio frequency link. Between phone 208a and phone 218a is the single network 206.

<u>Schuster</u> also discloses that data network telephones have preprogrammed identifiers that identify the data network telephones. After power-up, each of the data

network telephones sends a SIP Register message to register the respective data

network telephone. When a data network telephone is moved to a new location and a

call arrives at a server for the moved data network telephone, the call may be routed to

the data network telephone at its new location.

> **b.** **Schuster does not disclose or suggest "associating one or more alternative network link designations with one or more of the network links," as recited in independent claim 1**

As discussed above, Schuster discloses a data network telephone 208a

connected to a network 212 by a network interface 270. User interface circuitry 260 and

three alternative link interfaces to a Personal Information Device (PID) are connected to

processor 240. Specifically, Schuster discloses:

> The data network telephone 208a in FIG. 3 is connected to the network 212 by a network interface 270. The network interface 270 may, for example, be a network interface card, and may be in the form of an integrated circuit. A bus 248 may be used to connect the network interface 270 with a processor 240 and a memory 242. Also connected to the processor are user interface circuitry 260 and three alternative link interfaces to a PID, such as the PID 210a.

> A first link interface 248 includes an RS-232 serial connection and associated coupling hardware and mechanisms. The first alternative link interface 248 may, for example, be a docking cradle for a PDA (Personal Digital Assistant), in which information can be transferred between the PDA and the data network telephone 208a. The second alternative link interface comprises a first connection 254, such as an RS-232 connection, along with infrared circuitry 250 for converting signals into infrared output and for accepting infrared input. An infrared interface 252 may also be included within the second alternative link interface. The third alternative link interface comprises a first connection 256, such as an RS-232 connection, along with radio-frequency circuitry 258 for converting signals into radio frequency output and for accepting radio frequency input. A radio frequency interface 259 may also be included as part of the third alternative link interface.

Schuster, at col. 10, lines 1-26. Appellant submits that the above-cited portion of

Schuster discloses alternative link interfaces rather than alternate network links. There

is no discussion of alternate network links in that there is only a single network 106/206

disclosed.

To the contrary, claim 1 of the present application requires associating one or

more network link designations with one or more of the network links. Appellant

submits that a link interface is not equivalent to a network link. A link interface defines

how a device is connected via a link. For example, in Fig. 3 of Schuster, three link

interfaces are shown that can be used to link a data network telephone with a PID

through only a single network. Schuster does not disclose or suggest alternative

networks that can be used to link the PIDs.

In Schuster, a PID may be linked with the data network telephone via an RS-232

link interface, an infrared link interface, or a radio frequency link interface. However,

the link between the data network telephone and a PID, as disclosed by Schuster, is not

a network link. No network exists between the PID and the data network telephone to

which it is linked. For at least the reasons discussed above, the cited portion of

Schuster, as well as any other portion of Schuster, fails to disclose or suggest

associating one or more alternative network link designations with one or more of the

network links, as required by claim 1.

> c. **Schuster does not disclose or suggest "determining whether a particular alternative network link designation is associated with a first network link," as recited in independent claim 1**

As discussed in subsection a. above, Schuster discloses that data network telephones have preprogrammed identifiers that identify the data network telephones. After power-up, each of the data network telephones sends a SIP Register message to register the respective data network telephone. When a data network telephone is moved to a new location and a call arrives at a server for the moved data network telephone, the call may be routed to the data network telephone at its new location.

The Examiner alleges that Schuster discloses the claimed "determining" and identifies the following passage:

> The data network telephones 208a-b and 218a in the system 200 preferably have pre-programmed device identifiers (e.g. phone numbers), represented as SIP-URL's that are of the form sip: user@domain. An example is sip: 8475551212@3Com.com. After power-up, each of the data network telephones 208a-b and 218a sends a SIP REGISTER message to the default registrar, such as the network telephony servers 150 and 162. When a call arrives at one of the network telephony servers 150 or 162 for any of the registered SIP URLs, the server will forward the call to the appropriate destination. If a data network telephone is moved to a new location, all calls to the associated SIP URL will still be properly routed to that device. In other words, the system in FIG. 2 provides device mobility in the sense that calls will "follow" the data network telephone according to its SIP URL. This is especially useful if the data network telephone 208a-b or 218a is running the DHCP (Dynamic Host Configuration Protocol) so that when the location is changed, the IP address is also automatically changed.

Schuster, at col. 9, lines 24-42.

Appellant submits that Schuster's disclosure of routing a call to a data network telephone at a new location is not equivalent to determining whether a particular alternative network link designation is associated with the first network link, as required

by claim 1. Nothing in <u>Schuster</u> discloses or suggests that the new network link that is

used to route the call to the data network telephone's new location is designated as an

alternative network link associated with the first network link. Again, only a single

network 106 or 206 is disclosed in <u>Schuster</u>. In fact, if two different network links are

used for a connection to the data network telephone, one for the data network

telephone at its old location and one for the data network telephone at its new location,

the new network link would be used only because the data network telephone was

moved and the telephone registered its location, not because of any association

between the two network links. For at least the reasons discussed above, the cited

portion of <u>Schuster</u>, as well as any other portion of <u>Schuster</u>, fails to disclose or suggest

determining whether a particular alternative network link designation is associated with

a first network link, as required by claim 1.

> **d.   <u>Schuster</u> does not disclose or suggest "if step c)
> fails to establish the first network link and if the
> particular alternative network link designation is
> associated with the first network link, attempting
> to initiate, by the computer system, a particular
> network link of the plurality of network links
> based on the particular alternative network link
> designation," as recited in independent claim 1**

As discussed above, <u>Schuster</u> discloses that the link between a PID and its

respective network data phone is a point-to-point-link and that each link may be a

wireless link, an infrared link, or a radio frequency link. The Examiner alleges that

<u>Schuster</u> discloses the claimed feature, relying on the following text:

> Links 109a-b are point-to-point links, and may entirely or partially wireless,
> or they may be hard-wired connections. Each of the links 109a-b is
> preferably a wireless link, such as an infrared link specified by the Infrared
> Data Association (IrDA) (see irda.org for further information) or a radio

> frequency (RF) link such as the Bluetooth system (see
> www.bluetooth.com for further information). However, the point-to-point
> link can also be a hardwired connection, such as an RS-232 serial port.

Schuster, at col. 5, lines 59-65. Nonetheless, Appellant submits that the point-to-point

link shown in Schuster is not a network link in the context of the disclosed networks 106

or 206 of Schuster. Instead, the point-to-point link is simply a connection between two

devices without necessarily involving a network in the context of networks 106 or 206 of

Schuster, and certainly not involving an alternative to the disclosed network.

Schuster further discloses that PID data can be communicated from PID 110a via

link 109a to voice communications device 108a over first access network 112, data

network 106, second access network 114 to voice communication device 108b and

finally to PID 110b via link 109b. A voice-over-data channel for communicating voice-

over-data can concurrently exist with communication of PID data over a graphical data

channel. In this way, PID data may be communicated while voice signals may be

communicated between voice communication devices. Particularly, Schuster states:

> The PID data can be communicated across the link 109a to the voice
> communication devices 108a for transport across the first access network
> 112, the data network 106, and the second access network 114 to the
> voice communication device 108b. The PID 110b can receive the PID data
> across the link 109b for display on the PID 110b. A voice-over-data
> channel for communicating voice-over-data can concurrently exist with this
> communication of the PID data over a graphical data channel. In this way,
> a user of the PID 110a can communicate PID data to a user of the PID
> 110b while voice signals are communicated between the voice
> communication device 108a and the voice communication device 108b.

Schuster, at col. 6, lines 46-58. Appellants submit that the above-cited portion of

Schuster has nothing to do with any action to be taken when an attempt to initiate a

network link fails.

For at least the reasons discussed above, Appellant submits that <u>Schuster</u> fails

to disclose or suggest each and every feature of claim 1. Claims 2-7 depend from

claim 1. Therefore, the § 102(e) rejection of claim 1, and claims 2-7 depending

therefrom, based on <u>Schuster</u> should be reversed.

2. The rejections of claim 8, 15, and 22 under 35 U.S.C. § 102(e) based on <u>Schuster</u> should be reversed because <u>Schuster</u> fails to disclose each and every feature of those claims

For at least the same reasons discussed in section B.1. above, <u>Schuster</u> also

fails to disclose or suggest the features of independent claims 8, 15, and 22. Claims

9-14, 16-21, and 23-27 depend from claim 8, claim 15, or claim 22. Thus, Appellant

submits that the § 102(e) rejections of claim 8, 15, and 22, as well as their dependent

claims, based on <u>Schuster</u> should be reversed.

C.   <u>Conclusion</u>

For the reasons given above, the Board of Patent Appeals and Interferences is respectfully requested to reverse the outstanding rejections under 35 U.S.C. § 102(e) so that claims 1-27 may be allowed.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Appeal Brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 50-3102.

Respectfully submitted,

Date: October 27, 2006

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VIII. Claims Appendix

1. A method of establishing one of a plurality of network links on a computer system, comprising the steps of:

a) associating one or more alternative network link designations with one or more of said network links;

b) requesting a first network link of said plurality of network links;

c) attempting to initiate said first network link;

d) determining whether a particular alternative network link designation is associated with said first network link; and

e) if said step c) fails to establish said first network link and if said particular alternative network link designation is associated with said first network link, attempting to initiate, by said computer system, a particular network link of said plurality of network links based on said particular alternative network link designation.

2. A method as recited in Claim 1 further comprising the steps of:

f) determining whether a second alternative network link designation is associated with said particular network link; and

g) if said step e) fails to establish said particular network link and if said second alternative network link designation is associated with said particular network link, initiating a second network link of said plurality of network links based on said second alternative network link designation.

3.   A method as recited in Claim 1 further comprising the step of:

f)   if said step e) fails to establish said particular network link, attempting to

initiate, by said computer system, said first network link.

4.   A method as recited in Claim 1 further comprising the step of:

f)   if said step e) fails to establish said particular network link, initiating a

second network link of said plurality of network links based on said alternative network

link designation.

5.   A method as recited in Claim 1 further comprising the steps of:

indicating to a user whether said first network link was established; and

enabling said user to discontinue establishment of said particular network link.

6.   A method as recited in Claim 1 wherein said step b) includes:

sending a network open request to a shared library of said computer system.

7.   A method as recited in Claim 1 wherein said computer system comprises a

personal digital assistant.

8.   A computer-readable medium comprising computer-executable instructions stored therein for performing a method of establishing one of a plurality of network links on a computer system, comprising the steps of:

a)   associating one or more alternative network link designations with one or more of said network links;

b)   requesting a first network link of said plurality of network links;

c)   attempting to initiate said first network link;

d)   determining whether a particular alternative network link designation is associated with said first network link; and

e)   if said step c) fails to establish said first network link and if said particular alternative network link designation is associated with said first network link, attempting to initiate, by said computer system, a particular network link of said plurality of network links based on said particular alternative network link designation.

9.   A computer-readable medium as recited in Claim 8 wherein said method further comprises the steps of:

f)   determining whether a second alternative network link designation is associated with said particular network link; and

g)   if said step e) fails to establish said particular network link and if said second alternative network link designation is associated with said particular network link, initiating a second network link of said plurality of network links based on said second alternative network link designation.

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10.   A computer-readable medium as recited in Claim 8 wherein said method further comprises the step of:

f)   if said step e) fails to establish said particular network link, attempting to initiate said first network link.

11.   A computer-readable medium as recited in Claim 8 wherein said method further comprises the step of:

f) if said step e) fails to establish said particular network link, initiating a second network link of said plurality of network links based on said alternative network link designation.

12.   A computer-readable medium as recited in Claim 8 wherein said method further comprises the steps of:

indicating to a user whether said first network link was established; and

enabling said user to discontinue establishment of said particular network link.

13.   A computer-readable medium as recited in Claim 8 wherein said step b) includes:

sending a network open request to a shared library of said computer system.

14.   A computer-readable medium as recited in Claim 8 wherein said computer system comprises a personal digital assistant.

15.   A computer system comprising:

a data bus;

a processor coupled to said data bus; and

a memory device coupled to said data bus and having computer- executable

instructions stored therein for performing a method of establishing one of a plurality of

network links on said computer system, comprising the steps of:

a)   associating one or more alternative network link designations with one or

more of said network links;

b)   requesting a first network link of said plurality of network links;

c)   attempting to initiate said first network link;

d)   determining whether a particular alternative network link designation is

associated with said first network link; and

e)   if said step c) fails to establish said first network link and if said particular

alternative network link designation is associated with said first network link, attempting

to initiate, by said computer system, a particular network link of said plurality of network

links based on said particular alternative network link designation.

16.   A computer system as recited in Claim 15 wherein said method further comprises

the steps of:

f)   determining whether a second alternative network link designation is

associated with said particular network link; and

g)   if said step e) fails to establish said particular network link and if said

second alternative network link designation is associated with said particular network

link, initiating a second network link of said plurality of network links based on said

second alternative network link designation.

17. A computer system as recited in Claim 15 wherein said method further comprises

the step of:

f) if said step e) fails to establish said particular network link, attempting to

initiate, by said computer system, said first network link.

18. A computer system as recited in Claim 15 further comprising the step of:

f) if said step e) fails to establish said particular network link, initiating a

second network link of said plurality of network links based on said alternative network

link designation.

19. A computer system as recited in Claim 15 wherein said method further comprises

the steps of:

indicating to a user whether said first network link was established; and

enabling said user to discontinue establishment of said particular network link.

20. A computer system as recited in Claim 15 wherein said step b) includes:

sending a network open request to a shared library of said computer system.

21. A computer system as recited in Claim 15 wherein said computer system

comprises a personal digital assistant.

22.   A computer system comprising;

a data bus;

a memory device coupled to said data bus; and

a processor coupled to said data bus, wherein the processor is configured to

attempt to initiate a first network link of a plurality of network links in response to a

request for said first network link, and wherein if said first network link is not established

and if a user has previously designated an alternative network link for said first network

link, said processor is further configured to attempt to initiate said alternative network

link.

23.   A computer system as recited in Claim 22 wherein if said alternative network link

is not established, a second alternative network link previously designated by said user

is initiated.

24.   A computer system as recited in Claim 22 wherein if said alternative network link

is not established, said first network link is initiated.

25.   A computer system as recited in Claim 22 wherein whether said first network link

was established is indicated to said user, and wherein said user is enabled to

discontinue establishment of said alternative network link.

26.   A computer system as recited in Claim 22 wherein said request is sent to a

shared library of said computer system.

27.   A computer system as recited in Claim 22 wherein said computer system

comprises a personal digital assistant.

IX. <u>Evidence Appendix</u>

None

X.   Related Proceeding Appendix

None